

BLOCKCHAIN TECHNOLOGY FOR HUMAN RIGHT

ADEOLU SEUN OBAMEHINTI¹ & ADEOLUWA ABUMUYEEB OBAMEHINTI²

¹Malaysia University of Science and Technology, Malaysia

²Joseph Ayo Babalola University, Osun State, Nigeria

ABSTRACT

In previous years, people as a nation has suffered great loss over infringement on their human right. The fundamental right of a human is right to life. Also freedom of speech, right to quality and affordable education, are essential rights to a living. The aim of this paper is to use blockchain technology as a tool to defend and preserve human right. Where smart contract is written to be a legal weapon to back human right.

KEYWORDS: Human Rights & Blockchain

1. INTRODUCTION

Blockchain technology as being a pillar for different sectors over the years which they have applied in solving various challenges in there sector.

This Technology isonewhichwas created by Nakamoto, s. (2008). It can't be tampered with, highly secured, serve as database for public record, it also durable i.e. the information can be preserved for a long period of time.

The present situation of human right violation in Nigeria is worrisome, and measures that have been taken by either government or human right activist has not effectively handled the situation. People are killed every day unlawfully and little or nothing is done about it, properties are confiscated without due reasons, freedom of speech is restricted, movements are being banned unnecessarily, legally married women and forcefully taken away by powerful individuals, children below the age of 18 in some northern part of the country are whisked away. All this stated issues as generated heated arguments and protests over the years which has not yielded good result.

This research is based on blockchain can be used to defend and protect human right. Section 1 introduces blockchain and the problem of human right.

Previous work of research is discussed in section 2. Human right infringement is discussed in section 3. Blockchain design methodology is discussed in section 4. Blockchain human right executable contract is discussed in Section 5. Conclusion is discussed in Section 6.

2. BACKGROUND AND RELATED WORK

Blockchain technology, “allows transactions go through the laid down rules embedded in the executable contracts “according to Tschorsch, F. and Scheuermann, B. (2016). This said exchange can be ascertained by the people involved in the dealings without involving someone else or an organization. All these transactions could be validated between parties who fully trust each other without relying on a trusted middleman.

The Blockchain technology according to Glaser F, et al, (2017) “indicates that a couple of financial institutions

currently develop their vision by using this technology”. Walsh C, et al. (2016) “indicated that an important criteria for this technology is the algorithm that is used in other to guarantee how secured, how private the data is kept”. Tschorsch, F. and Scheuermann, B. (2016), “discovered that evidence-of-work concept need energy but it also yield consistency and guide against being faked by any participant. Noyes, C. (2016a) “certain things need to be put into consideration before the deployment of the implemented blockchain here”.

Some establishments has improved the idea of no need to rely on third party with virtual organizations and smooth business dealings of IoT devices Das, Maniklai, (2015). “Contends that the present strategies is commonly not appropriate for Internet of Things”.

Majorly, the worry for this innovation is how effective can it be. Today the approval time for every exchange, for example, Bitcoin is about 10min accomplishing 7 exchange per seconds as the most extreme throughput.

A few scientists has enhance proficiency of the technology. Atzori, Marcella (2016) “Proposed a decentralized Blockchain which is design to secure the individual information and guarantees clients claim and guild their information”. The technology improve proficiency with utilizing information record keeping. Decisively, this has actualized a convention that transforms a Blockchain into a robotized that does not need verification from an outsider. Paul, G, et al. (2014) suggested another strategy which enhances the productivity.

Researchers included additional bytes in header field to use timestamp adequately. Blockchain innovation stages can be categorized into two kinds: Open and private Blockchain. For public Blockchain, anybody can join the Blockchain and make transactions. Private Blockchain permits only selected clients on the system, this is usually owned and controlled by an organization.

3. HUMAN RIGHT INFRINGEMENT IN NIGERIA

Over the years, the country has been facing with various violation of fundamental human right. Below are the various right infringed on:

3.1. Right to Education

Education is the future of any Nation. In a situation where people are being forced against their will to sit at home and not attend school like the peers is a fundamental infringement.

According to the research carried out by the America department of labour in 2013 indicates, 14,000,000 children of age between 5 to 14 years old, which is 31% of the children population in Nigeria engage in Menial labour without going to school.

It is seen in the southern part of the country where some parents who lie in remote areas believe education is not the solution and would rather prefer their children go to farm with them against their will. In the eastern part of the country where business is considered the other of the day, children at an early age are taken to store to serve masters, as store boys at a tender age which is child abuse. According to BBC NEWS Africa 2017 Nigeria has the highest number of out of school children which is numbered at about 10.5 million.

In the northern part where the boys are asked to join the military at their teens as against getting quality education and proper training and their girls are ask to stay home and help their mum. According to UNICEF, it estimated that 60%

of Nigerian children are not attending school live in the north of the country

According to BBC, Hausa editor Jimoh Saleh stated that the failure of children going to school is due to inadequate government funding.

3.2. Right to Life

The country over the years has been in chaos due to various attacks and the present machineries put in place has not paid well enough to stop violation on human life. In the northern part, where Boko Haram, Africa Eye (2020) which happens to a terrorist group incessantly kill people there by denying them right of living.

In the southern part where the government hasn't been able to resolve the cattle rustling and herders crisis and this has left to death of promising children, young, old humans, thereby infringing on their human right.

The security system has also in some way contributed to this, where the life of people can be guided properly and you see security officers manhandling people which resulted to death of individuals or groups.

3.3. Right of Association

This is another integral part where violation of human right is being considered. It has become a regular, when a group of individuals are seen together, by security operatives, they consider them hooligans, touts or sometimes even charge them for robbery with due investigation. Every human has a right of association.

3.4. Freedom of speech

People have been shot down by powerful individuals or group over the years due to infringement on their right to speech. Even human has the right to speak and express himself. Over the years, a lot of cases of rape has been swept down the carpet reasons being that people are scared to come up because of either fear of castigation, fear to dealt with unlawfully by offender or the shame that come with it. With blockchain technology this will introduce anonymity where such case could be reported without the people knowing who reported the case.

4. BLOCKCHAIN DESIGN METHODOLOGY

The proposed method for protecting human right, is adopted from Karamitsos, I., et al (2018). The design methodology for human right protection is composed of the following steps. First, for any user, the setup of the Ethereum node is required. Second, the functions is defined and finally, the process between the government, law enforcement agencies and citizens are described in the following sections. The figure in 4.1 shows the structure of the blockchain and how it helps the citizens interact with the government and also have access to the constitution without the citizen identity being identified.

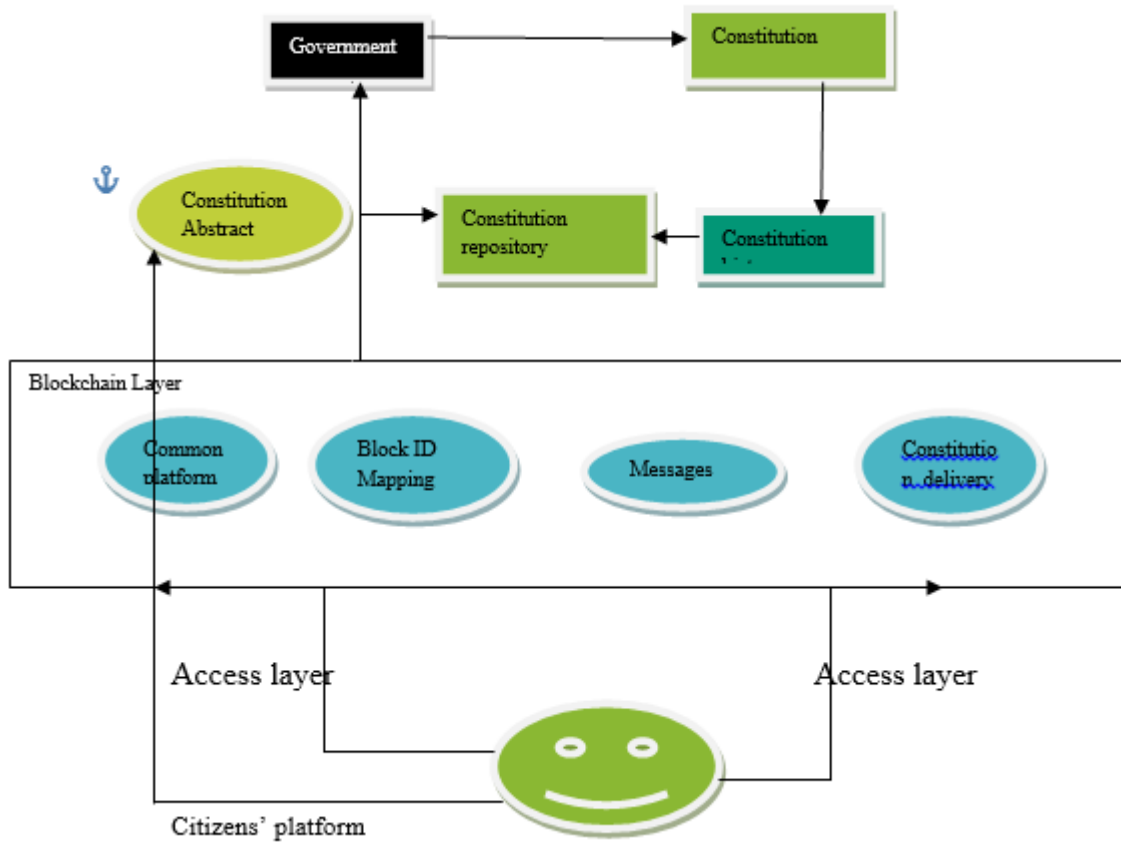


Figure 4.1: Blockchain Human Right Contract Structure.

- **Government:** The government write the laid down constitution and make it available for every citizen to have access to it, there by knowing when their fundamental human right is be trampled on.
- **Blockchain layer:** This serve as the regulatory intermediary between the government and the citizen which helps to convey citizens complain to the government by revealing the citizen real identity.
- **Citizens' platform:** This is where every citizen of the country is registered and have the right to express their franchise or right to speech. Also, a case of violation can be reported and in turn, the blockchain platform relates to the government.

4.1 Ethereum Node Setup

The aspect of the Ethereum are the citizens, the roles they play in protecting their human right. And the process is described in the following

Citizens and their responsibilities

For the definition of human right an executable contract is written, a template is design which is government to citizens as the users. The key players in this executable contract are the government who writes the executable contracts

Citizens; this are the participants in the blockchain where there is anonymity and cases of human right infringement can easily be reported without fear of being victimized. Here, the permission less type of blockchain is adopted. The permission less type of blockchain is the one in which every citizen can be a member of this platform which

make it easily for everyone to participate. Here, there is no need for lawyer to sign an agreement before one can become a participant, the address are allotted in binary. By this way, the identity of every participant is protected.

5. BLOCKCHAIN HUMAN RIGHT EXECUTABLE CONTRACT

5.1 Functions

The use case diagram below shows how the blockchain executable contract would permit citizens to interact and send message to government without fear.

It provide anonymity where for every citizen a block is allotted to them after the miner must have mined a block. It takes just a few minutes to mine block. A mathematical puzzle is thrown for miner to solve and the miner who successfully gets this puzzle automatically becomes a block miner.

This in some way has also solve the problem of unemployment where miners get paid for job well-done. The mined block is allotted an Id which can't be forged by anyone due to the intricacy behind the id. Every block has its private and public key. The private key belongs to the owner of the block and the public key is given to every other citizens.

A citizen, should he choose to post or report a case of human right violation by sending message to the government through the permission less blockchain platform, is read by every citizen and can be commented on. It is a secured network and the message can't be traced to any name due to the fact that the system is built on anonymity.

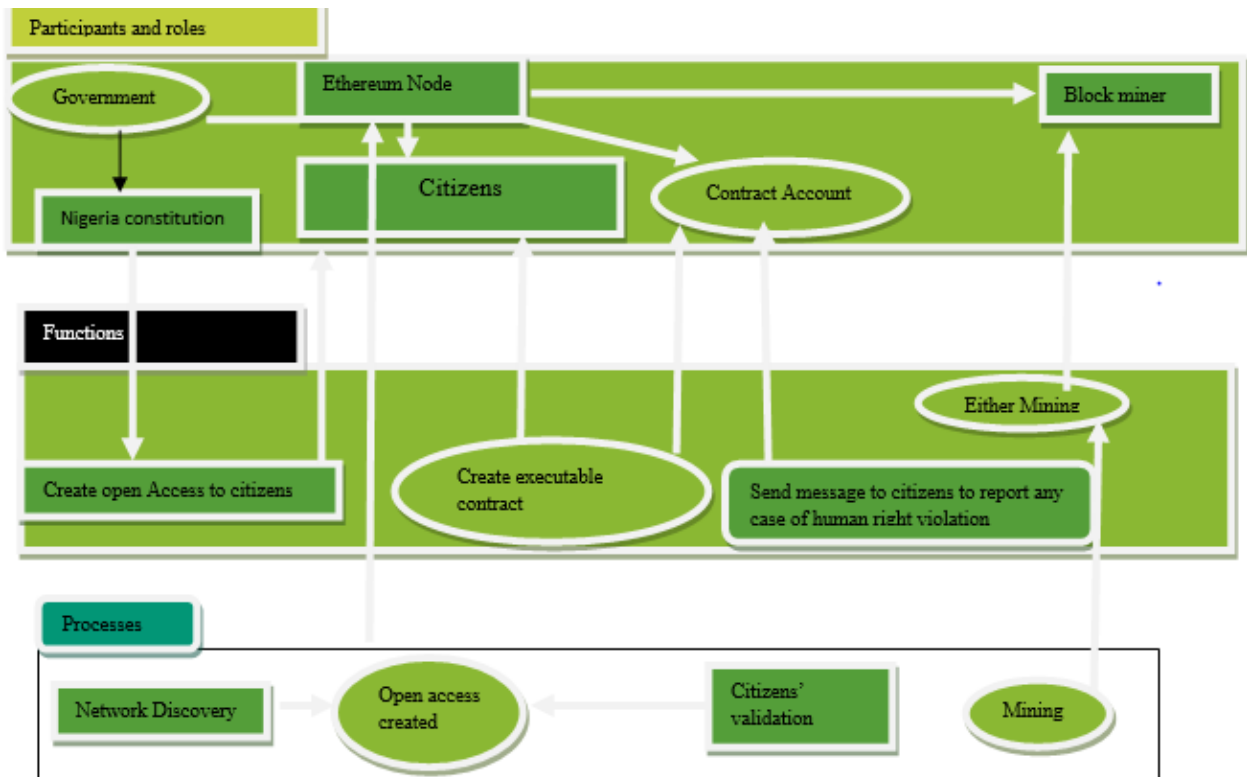


Figure 4.2: Proposed Human Right system-use case components.

6. CONCLUSIONS

Blockchain is situated to answer to the need of citizens on how their human right can be protected. It is fundamental for every citizen to enjoy its human right. The right to Education, the proposed blockchain system has covered this in a way where by children who are denied right to good education can make report on the platform without being scared of being

victimized by anyone.

This also applies to every other human right. While couple of organizations is prepared to put intensely in blockchain, it is essential to know that human right is a major factor that determines the growth and development of a country. The citizens' welfare is of utmost important. The blockchain technology to serve as its immutable database, will empower them to be arranged once cases of human violation arise, this in turn will promote peace and ease of doing business in the country, where human right are given and guided.

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